

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 May 2002 (10.05.2002)

PCT

(10) International Publication Number
WO 02/36214 A2

(51) International Patent Classification⁷: A63B 69/00

(21) International Application Number: PCT/ZA01/00157

(22) International Filing Date: 10 October 2001 (10.10.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2000/1789 10 October 2000 (10.10.2000) ZA

(71) Applicant and

(72) Inventor: MYHILL, Athol, David [ZA/ZA]; 32 Barry
Hertzog Drive, Florida, 1709 Roodepoort (ZA).

(74) Agents: PEIJPER, Johan, A., D. et al.; Peijper Incorporated, Suite 221, Barclay Square, 296 Walker Street, Sunnyside, 0002 Pretoria (ZA).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, BZ, CA,

CH, CN, CO, CR, CU, CZ, CZ (utility model), DE, DE (utility model), DK, DK (utility model), DM, DZ, EC, EE, EE (utility model), ES, FI, FI (utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

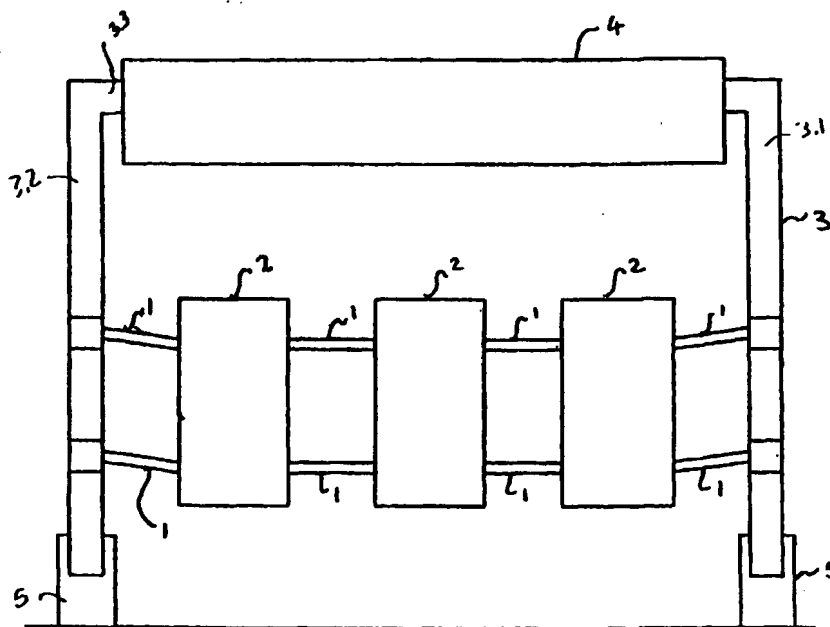
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FOOTBALL TRAINING APPARATUS



(57) Abstract: The invention provides a football training apparatus including a padded member (2) which is biased to inhibit the forward progress of a trainee who impacts into the padded member, biasing means (1) for biasing the padded member against displacement relative to the framework in the direction of impact, and a framework (3) on which the padded member and biasing means are directly or indirectly supported. The biasing means (1) may be an elastic cord.

WO 02/36214 A2

FOOTBALL TRAINING APPARATUS

Field of the Invention

5

The invention relates to an apparatus for training players in scrummage, ruck, maul, charge, and retreat manoeuvres.

Background to the Invention

10

The inventor is aware of scrummage training apparatus which consists of a skid mounted framework with fixed padding for the scrummage team to push against, the framework including a platform for mass pieces fixed over a central portion of the framework so that resistance to the pushing by the team

15 is varied by varying the mass placed on the platform i.e. more mass pieces more resistance.

20

The known type of apparatus is believed to be limited in the scope of its use in that it requires a large number of people to train together and damages the grass on which it is used. Further, the framework is fixed, not easily moveable, and no alternative manoeuvres can be practised. Yet further, it is best used by players of more or less the same size and the point of scrummage impact is fixed and rigid, which is unlike real life.

25 Summary of the Invention

According to a first aspect of the invention, there is provided a football training apparatus including:

30

- a padded member which is biased to inhibit the forward progress of a trainee who impacts into the padded member;
- biasing means for biasing the padded member against displacement relative to the framework in the direction of impact; and
- a framework on which the padded member and biasing means are directly or indirectly supported.

The padded member may be a cross member of the framework.

The padded member may be provided in addition to a padded cross member of the framework.

5

The apparatus may include a plurality of the padded members thereby to permit a plurality of trainees to practice a manoeuvre together.

10 The apparatus may include resistance means for inhibiting forward motion of the padded member while inhibiting damage to the surface on which the apparatus is used.

By inhibiting the displacement of the apparatus over a surface the forward motion of the padded cross member may be inhibited.

15

The apparatus may include one or more wheel rotatably connected to the framework to permit displacement of the framework over a surface on which the apparatus is used.

20 The resistance means may include a skid which provides frictional resistance to displacement over the surface.

The resistance means may include one or more mass pieces placed on the framework to provide a downward force to provide resistance to displacement
25 of the apparatus.

The location of the mass pieces on the framework may be selectable to control the amount of resistance to displacement.

30 The total mass of the mass pieces on the framework may be selectable to control the amount of resistance to displacement.

The resistance means may include brake means for applying a braking force to the wheels thereby to provide resistance to displacement.

The resistance means may include foot plates on which persons may stand to provide a downforce or a braking force to the apparatus.

5 The front end may further include a plurality of access openings and a plurality of cushioned impact pads located on the framework so that portions of said access openings are defined between at least some of said pads.

The access openings may be below the padded cross member.

10 The impact pads may include a vertically orientated portion against which a trainee may push to exercise the technique used in a ruck-and-maul manoeuvre.

The biasing means may be one or more resiliently deformable members.

15 The impact pads may be biased against displacement by the resiliently deformable member or members.

20 The resiliently deformable member may be an elastic cord, such as that known as a Bungee™ cord.

The resiliently deformable members may be attached to the impact pads at a position located to complement the stature of the trainee.

25 The attachment position may be adjustable.

The impact pads may be size adjustable to present a suitable target for a specific stature trainee.

30 In the training of football players for optimum performance in a ruck-and-maul, offensive and defensive blocking, balance, coordination, and reactions, are essential qualities that must be developed. Under actual game conditions the opposing players face each other both poised to charge at the instant the ball is snapped into play. Thus, although weight and strength are definite assets to a player, his most important qualities are quick, dependable starting reactions
35 plus the ability to develop a high initial driving or charging speed and to maintain his balance and momentum after impact with the opposing players.

Training devices which simulate a scrum or a ruck-and-maul have been found to be very useful in training football players in the past due to the fact that such devices provide a uniform, controllable standard against which each player's reactions can be observed and measured during practice. In general

5 terms, this apparatus utilizes a resiliently deformable member which is driven forward by the driving force of a ball carrying player, i.e. a trainee, with the forward movement of other players supporting and driving the player and ball forward. The shock of impact with the body of the player is absorbed by at least one pad of resilient material attached to the resiliently deformable

10 member thereby to realistically simulate the impact properties of opposing players. This vital resistance and rebound is provided by the resiliently deformable member.

A need exists for an apparatus that will exercise the driving force and strength

15 of several players under identical conditions. With the present invention, this is accomplished by an embodiment comprised of a plurality of impact pads mounted on a common support frame and having an elastic cord for example a Bungee™ cord, that operates in a resistive manner.

20 In one embodiment, the apparatus is designed specifically to simulate a ruck-and-maul as experienced with opposing players in the direction of a player. Such an apparatus provides for an impact pad, when driven forward, to travel in a direction with the player. The player, in turn, charges the impact pad to the maximum as allowed by an elastic cord. The cord tends to resist and as

25 the players retrieve the impact pad returns back to its normal position. This apparatus, however, relies upon the elastic cord to provide the necessary means for resisting the moving of the impact pad in the direction of the player. Further, even though such device may be employed to teach ruck-and-maul techniques, it may be also be used to simulate a line-out, tackle exercises,

30 scrummage and throw-in techniques under actual game conditions.

The apparatus may further provide at least one impact pad removably mounted on the elastic cord for reciprocal movement in a direction toward and away from a player. Such apparatus operates with the elastic cord attached

to a structure while the elastic cord renders resistance to the movement of the pad under an applied force presented by a charging player, and for urging the structure in a forward direction, once the force is applied by the players. This apparatus is able to replicate the charge of an opposing player generally
5 directly toward a player.

In other words, the football training apparatus provided hitherto lack some of the fundamental elements required to simulate the physical reactions ordinarily provided, for instance, in a ruck-and-maul under actual game
10 conditions. Consequently, there are needs for training apparatus that can provide players with more realistic playing conditions generally encountered during a football game.

A need also exists for an apparatus for practising a ruck-and-maul, which is
15 more easily composed and manufactured from general obtainable components.

Needs also exists for a training apparatus and means of simulating different scenarios encountered while playing the game which is simple in design,
20 inexpensive to manufacture, precise in construction, easy to use, reasonably movable in weight, elementary in application and efficient in operation.

In brief, the present invention seeks to alleviate the above-indicated problems and shortcomings of the present state of the art and is directed to a new and
25 improved apparatus for training football techniques. In one form, the apparatus comprises a support frame provided with an elastic cord mounted on said support frame horizontally, for resisting forward movement, at least one impact pad having a padded area mounted on said elastic cord for reciprocal movement between a stretched and a normal position, the
30 stretched position being outwardly and generally against a player being trained on the apparatus, said impact pad being returnable from its extended position to normal position.

The device of this invention may include at least one impact pad of resilient material which is coupled via a suitable attachment means to the elastic cord. The elastic cord, which is mounted on the exterior of the support frame for ease of adjustment, is stretched by a forward moving player toward its extended position and opposes motion toward its stretched position. Supporting players may drive forward in assisting a forward moving player accordingly whereby the elastic cord is held in its stretched position until the players retreat. The forward motion of the elastic cord is resiliently limited by the inherent characteristics of the elastic cord and the rearward motion is resiliently limited to a rope of fixed length thereby preventing the elastic cord to shoot back beyond its normal position as aligned with the support frame.

The stretching elastic cord which is driven forward by the players may be selected to simulate the resistance experienced in a ruck-and-maul and simulates the player's natural shock-rebound properties. In addition, the elastic cord which resiliently limit the players forward motion, simulate the player's determined attempt to hold his ground after he switches from an offensive to a defensive posture after releasing the ball.

Thus, in one feature of this invention, the training apparatus is designed to teach a player, for instance, those skills which are essential for successfully keeping possession of the ball, the ability to move laterally on his feet in a semi-upright stance, to properly engage an oncoming opposing player, to deliver a driving forward and upright force on the opposing player, and to follow through the entire ruck-and-maul manoeuvre to effectively clear the ball in a driving forward action, against the elastic cord.

In another feature of the present invention, the impact pads may be removed and replaced by a single tackle bag similarly mounted to the support frame whereby the elastic cord is mounted in a cross diagonal manner accommodating the tackle bag at corners thereof, approximately in the centre of the vertical plane formed by the support frame. The padded area can be shaped in any desired form to accommodate the tackling techniques being taught. The player approaches the tackle bag and tackles the bag by holding

on tight and when released, the tackle bag returns to its normal position due to the capabilities inherent to the elastic cord.

The training apparatus of this invention advantageously may accommodate
5 widely different applied exercises to practice as necessitated by the game. Additionally, a vertical adjustable pole of adequate length, may be employed with a resting football shelf, centrally positioned on the support frame, whereby a jumping player supported by the lifting players may practice line-
outs by reaching for the football resting on the football shelf attached to the
10 vertical pole, and to drive into the impact pads against the resistance as provided for by the elastic cord after the jumping and downward movement are completed,

In still another feature of this invention is to provide a football training
15 apparatus which is safe to both bystanders, participants and players during use thereof and can be repetitively used. Thus, the present invention advantageously can be used by both children and the like, as well as professional players.

20 Another feature of the present invention resides in providing a movable apparatus which is suitable for both outdoor and indoor use and which is durable and capable of extended use.

In still another feature of the present invention is to provide a strong and, if
25 desired, easy to assemble and disassemble and convenient to store apparatus. It can withstand long and continuous hard wear and abuse and the elastic cord, by reason of the method of mounting, may last indefinitely. The impact pads and tackle bags can be adjustable in number and position relative to the sled and elastic cord and to each other, thus adapting the
30 device to various training conditions and rendering it highly versatile.

In a further feature of the present invention is to provide a teaching apparatus which is simple and inexpensive to construct and maintain and wherein the

above-mentioned modifications can be accomplished by simple mechanical operations using either readily available or easily fashioned component parts.

5 The above and other features and advantages of the invention, including various novel details of construction and combination of parts, will now be more particularly described with reference to the accompanying drawings and detailed description. It will be understood that the particular device embodying the invention is shown by way of illustration only and not as a limitation of the invention. The principles and features of this invention may
10 be employed in various and numerous embodiments without departing from the scope of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

15 The objects and advantages of the invention will be apparent to those skilled in the art from the following description of several specific embodiments thereof, as illustrated in the attached drawings, in which:

20 FIG. 1 is a front view in of one illustrative embodiment of the invention with two parallel elastic cords mounted to several impact pads and to the support frame;

FIG. 2 is a side view of the invention of the embodiment of FIG. 1 showing the support frame, sled, rollers and additional weights;

25 FIG. 3 is a top view in elevation of the embodiment of FIG. 1 with a rope of fixed length shown in its normal position;

FIG. 4 is a front view of a second embodiment of FIG. 1 with a tackle
30 bag;

FIG. 5 is a front view of a third embodiment of FIG. 1 with a cross beam member attached to the support frame and to various scrummage bags;

FIG. 6 is a front view of FIG. 1 in yet another embodiment of the invention using a plurality of devices including a vertical adjustable pole with football resting shelve and net;

5

FIG. 7 is a side view of FIG. 6 in another embodiment of the invention using a plurality of devices including a vertical adjustable pole with football resting shelve and net and a secondary adjustable pole with loop;

10

FIG 8 is a side view of yet another embodiment of the invention using a mass piece located over the sled for resistance purposes;

15

FIG 9 is a side view of the embodiment of FIG 8 in which the mass piece is located between the sled and the wheels for reduced resistance purposes;

20

FIG 10 is a side view of the embodiment of FIG 9 in which the mass piece is located over the wheels for further reduced resistance purposes;

FIG 11 is a side view of yet another embodiment of the invention using a plurality of mass pieces for resistance purposes.

25 DETAILED DESCRIPTION OF THE INVENTION

The improved football training of this invention, as exemplified by the structure depicted in FIGS. 1-7, comprises generally a framework in the form of a support frame 3, mounted on wheels in the form of rollers 5, impact pads 2, and an elastic cord 1, for example a Bungee TM cord.

30

In FIGS. 8-11, only the framework is shown for ease of understanding, however, the components shown in FIG's 1-7 form part of the apparatus using this framework. The framework is in the form of a support frame 3,

mounted on wheels in the form of rollers 5, a sled 5.1, impact pads 2, and mass piece(s) 100.

As illustrated in FIG. 1, the support frame 3 is provided with two upright side posts 3.1 and 3.2, a top cross bar 3.3 with protective padded cover 4 accordingly whereby the top cross bar 3.3 may be at right angles to posts 3.1 and 3.2, all of which are adapted to support the frame 200 on either surfaces. The two frontal uprights 3.1 and 3.2 are respectively secured to the side base posts 10 and 13. As means for providing support to the two frontal uprights 3.1 and 3.2, two braces 6 are respectively connected to the frontal uprights 3.1 and 3.2, approximately midway extending downwardly to be connected to the side base posts 10 and 13 respectively. The opposite ends of the braces 6 are therefore respectively joined to the two side base posts 10 and 13 to complete the support. In this manner, by attaching a cross beam 14 at right angles to the adjacent side base posts 10 and 13 at opposite ends of the cross beam 14 and side base posts 10 and 13, a base frame may be constituted, strengthened by corner beams 15 and 16 as shown in FIG. 3. It should be understood, however, that the frame 200 is constructed in a conventional manner and can be employed to provide support with equal success for the two frontal uprights 3.1 and 3.2 in any other suitable manner. Further, the support frame 200 can be either in a rectangular shape, as depicted in FIGS. 1-7 or in any other shape (not shown). Of course, semi-circular shapes can be either convex or concave with respect to the players.

In order to provide support for the frame and structure 200, the posts and beams may be respectively connected to each other, for instance, by any suitable means, such as nuts and bolts or welding to maintain the same in place to the support frame 3. Additionally, one end of a rope 11 of fixed length, is attached to the rear side of the elastic cord 1, approximately in the middle thereof and extends to the rear of the frame 200, accordingly whereby the other end of the rope 11, is attached to cross beam 14, approximately in the middle thereof. The purpose of the rope 11 may be to prevent the elastic cord 1 from shooting back beyond the fixed length of the rope 11 after a driving action by the players.

In keeping with the invention, the frame 200 can be of any satisfactory shape that is workable with this invention. In one exemplary embodiment, the frame 200 as illustrated in FIG. 2, can comprise a rectangular shape as formed by
5 the side base post 10 and 13 together with cross beam 14.

Preferably, the rollers 5 are positioned strategically, directly below the weight containers 7 for moving the frame 200 in either direction easily, thereby balancing the weight of the structure and frame 200. In addition, a wheel 9,
10 smaller in dimension, may be removably attached to the cross sled beam 8 to enhance easier movement if necessary.

A plurality of impact pads 2, as illustrated in FIG. 1, are removably connected at the rear side thereof to the elastic cord 1, in an equally spaced manner.
15 The impact pads 2 may, however, be connected to the elastic cord 1 by any other suitable means so long as it does not depart from the scope of this invention. Regardless of how the impact pads 2 is connected to the elastic cord 1, it is preferred for the impact pads 2 to extend generally outwardly toward a player requiring the player to drive forwardly into the impact pads 2
20 safely, which is essential to developing, for instance, excellent ruck-and-maul techniques. The elastic cord 1 at one end thereof may be removably attached to one upright side post 3.1, extending transversely across the front to the other side of the support frame 3, where the other end of the elastic cord 1 may be removably attached to one upright side post 3.2. In order to balance
25 the impact pads 2 as attached to this elastic cord 1, it is preferred that a secondary elastic cord 1 be employed directly below and parallel to this first elastic cord 1, in a similar way.

Affixed to the upright side posts, 3.1 and 3.2 and the top cross bar 3.3 by any
30 suitable means are protective cover pads 4 generally having, for instance, a rectangular shape. The protective cover pads 4 can be affixed to the frame by various means, such as ties, snaps or Velcro strips attached to the protective cover pads 4. It is to be noted that all pads and bags can be in any desired shape or thickness, preferably rectangular in shape, and made from any

suitable material to accommodate various football techniques, such as ruck-and-maul, line-out and tackle techniques.

Referring now to FIG. 2, there is provided a side base post 10 horizontally
5 mounted at right angles to the support frame 3 whereby a brace 6 is
connected to the frontal upright 3.1 approximately midway extending
downwardly to be connected to the side base post 10. Obviously, according
to FIG. 3, there is also provided a side base post 13 horizontally mounted at
right angles to the support frame 3 whereby another brace 6 is connected to
10 the frontal uprights 3.2 approximately midway extending downwardly to be
connected to the side base post 13. Attached to this brace 6 and the side
base post 10, approximately directly above roller 5, is mounted a weight
container 7 providing the necessary weight. The weight containers 7 are
specifically located at this position to enable a user to easily maneuver the
15 training apparatus to different positions on the field (not shown) whereby
various training apparatuses may be employed relative to each other,
accordingly thereby providing different scenarios and phases across the field
of play. It should however also be noted that the resistance to motion of the
training apparatus can be varied by filling the weight containers 7 which may
20 be hollow, to a chosen degree with a heavy fluid such as water or sand.
Additional resistance may be provided, if required, by brake pads which act on
the two rollers marked 5. The rollers may be plain, or if additional grip on the
ground is necessary they may be ribbed out or studded.

25 Turning now to FIG. 3, there is shown a frame 200 for accommodating the
impact pads 2 (not shown) at its normal position, a protective cover pad 4;
weight containers 7 mounted onto side base posts 10 and 13 respectively; a
rear cross bar 14 and supporting corner bars 15 and 16, in the same plane. A
rope 11 of fixed length is secured at one end to the elastic cord 1
30 approximately through the center line of the length of frame 200 and the other
end to cross beam 14, as explained above, where the rope 11 operates in a
guiding manner whereby the elastic cord 1 is prevented from shooting back
beyond the front plane as formed by the support frame 3. It should be
appreciated that the players may drive into the impact pads 2, thereby forcing

the elastic cord 1 forwardly toward the rear of the training apparatus, in a simulated ruck-and-maul action accordingly whereby, on retrieval, the elastic cord 1 tends to restore itself due to its elasticity features, to its normal position, whereby the rope 11 of fixed length or any other equivalent member
5 may prevent the elastic cord 1 to move beyond its normal position, as a safety measure.

It should be understood, however, that when the players forcefully drive into the impact pads 2, stretching the elastic cord 1 toward the rear of the training
10 apparatus, while occupied in the simulated ruck-and-maul action, the ball carrying player should keep possession of the ball while caught up in the ruck-and-maul and also attempting to clear the ball toward the front of the apparatus with the support and assistance of the other players.

15 As a result of the tension placed upon elastic cord 1 by the forward riving players while in contact with the impact pads 2, the elastic cord 1 in its stretched position, is simulating the ruck-and-maul and the elastic cord 1 will automatically returns to its normal and relaxed position when the players retrieve.

20 In another embodiment, the elastic cord 1 may be selectively adjusted to provide different magnitudes of resistance or force reflected by the rate at which the impact pads 2 are acting against a player driving into the impact pads 2. It should be appreciated that any suitable advancing means or
25 variation of the one described can be employed herewith so long as it functions in accordance with the teachings of this invention.

As illustrated in FIG. 1, when the players retrieve, in returning the impact pads 2, to its normal position by the elastic cord 1, the elastic cord 1 not only acts to
30 absorb the impact delivered to the impact pads 2 by the players, but also to provide a sufficient amount of resistance to simulate the response of an opposing player as experienced in a ruck-and-maul action. As stated above, the elastic cord 1 may, if desired, be selectively adjusted at different levels

thereby altering or enhancing the speed and force at which the impact pads 2 is to be driven forward.

The general operation of the football training apparatus of this invention according to FIGS. 1-3 is to have e.g., the apparatus, the impact pads 2 attached to the elastic rope 1. A player, in turn, can position himself, for example, in a stance directly in front of the impact pads 2. On a given count, the player can rush the impact pads 2 for contacting the same. In effect, the movement of the impact pads 2 requires the player to respond accordingly. Additionally, the other players join in to form a ruck-and-maul in contact with the impact pads 2 in a direction toward the first mentioned player. Upon contacting the impact pads 2, the players should tend to push forward thereby clearing the ball toward the opposite direction of driving, where after the players may return for repeated practice.

15

Therefore, the apparatus for training football techniques comprising: a support frame 3 and having a frame 200 having a first end and a second end; at least one impact pad 2, having a padded area, said impact pads 2 being positioned removably on at least one elastic cord 1, said elastic cord 1 for reciprocal movement between a stretched and relaxed position being outwardly and generally away from a driving player being trained on the apparatus, means on said support frame 3 to detach the said elastic cord 1, said impact pads 2 being returnable by the elastic cord 1 from its stretched position to its normal relaxed position when a player retrieves.

25

The apparatus wherein said frame 200 is provided with at least two rollers 5, each roller 5 mounted on each side end of said frame 200 and spaced sufficiently apart for receiving and accommodating players therein between, said apparatus 200 being movable. The invention may include a method of teaching ruck-and-maul techniques comprising: the apparatus described herein providing a player to be trained on the apparatus; said player reacts to and contacts said impact pads 2 and the elastic cord 1 returns said impact pads 2 to its normal relaxed position for repeated contact.

30

Referring now to FIG. 4, it will be seen that the apparatus in another embodiment comprises a support frame 3, which may be constructed of welded steel tube, has a pair of upright side posts 3.1 and 3.2. A tackle bag 26 is centrally arranged and is carried by elastic cords 31, 32, 33 and 34 approximately equal in length, radially secured to the corners of the tackle bag 26 respectively and the other ends thereof, secured to the support frame 3. These elastic cords 31, 32, 33 and 34 are preferably arranged as shown in FIG. 4 and for protection of the players additional padding (not shown) may be provided on the front and sides of the support frame 3 and top cross bar 3.3.

It should be noted that a player may dive into the tackle bag 26 thereby practicing tackle techniques without some-one assisting in holding the tackle bag 26 upright. According to the invention, the elastic cords 31, 32, 33 and 34 may automatically return the tackle bag 26 after a player carried out the exercise.

Referring to FIG. 5, scrummage pads 42, 43 and 45 are constructed on a lateral cross beam member 17, which are conveniently attached to the apparatus when a conventional scrummage exercise need to be practiced. Other details of the construction are more clearly seen in the presentations attached hereto.

Further to the above, and referring now to FIG. 6 and 7, a vertical adjustable pole member 19 which can be secured to the top cross bar 3.3 may be employed, provided with football resting shelves 24 located at the upper part of the vertical adjustable pole member 19. If desired, the pole 19 may be adjusted to provide for different heights. In use, the apparatus can be set up to match different sizes of players by adjustment of the vertical pole 19 thereby practicing line-out exercises. In a preferred embodiment, a player may reach for a football 20 placed onto the football resting shelves 24, while the other players may assist in a supporting manner. Simultaneously, thereafter the players may drive into the impact pads 2 in simulating a line-out followed by a ruck-and-maul as described above.

In another embodiment, and referring to FIG. 7, if it is required, the training apparatus can be constructed as shown in FIG. 7 which shows an apparatus similar to that previously described, but with two upright pole members 97 and 18 removably secured to the top cross bar 3.3, at the corners thereof respectively. The upright pole members 97 and 18 may carry a net 21 extending from the top of the upright pole members 97 and 18, downwardly toward cross beam 14 (not shown). There is further provided a vertically adjustable upright member 22 located centrally at the rear part of the training apparatus securely attached to the cross beam 14. A loop member 23 may be positioned at an angle at the upper top end of the upright member 22. A player may therefore practice to throw the ball 20 through the loop member 23 thereby simulating a throw-in exercise in line-out actions. The ball 20 may thus be caught by the net 21 thereby rolling down as guided by the net 21 in a returning action to the thrower. Other features of the previously described construction are included in a simplified form.

In FIG's 8 to 11, the support frame 3 includes a ground engaging roller 5 which remains in contact with the ground at all times when in use and a sled 5.1 which also engages the ground when the apparatus is in use and imparts a resistance to displacement of the apparatus by dragging on the ground. Further wheels 5.2 are also provided which do not engage the ground at all times and are only used for manoeuvring the apparatus into position at which time they are brought into contact with the ground.

A mass piece 100 is displaceably located on the frame 3 to permit displacement thereof from a position where it is located over the sled 5.1 for maximum drag i.e. resistance, to a position intermediate the sled 5.1 and the roller 5, where it exerts a reduced drag effect, upto a position directly over the roller where the drag effect is the least.

The mass piece 100 may however be made up of several parts, as shown in FIG 11, and the parts may be distributed over the extent of the frame 3 to achieve a desired amount of drag.

It will be seen that the invention provides the apparatus of considerable versatility, capable of simulating actual playing conditions and in the case of the version mounted on rollers, one which will cause a minimum of damage to turf on which it is used.

5

As described above, the football training apparatus is operated manually but nevertheless, if desired, the football training apparatus can be automated using known techniques to enable the operator to operate both the apparatus and adjustments thereto under remote or automated control.

10

It should be appreciated, that this training apparatus is designed to teach various types of football skills including ruck-and-maul skills. In particular, this football apparatus is adapted to teach a player those skills essential to perfect football techniques. For example, this football apparatus teaches a player to

15 move laterally on his feet in a semi-upright stance, to properly engage with other players and oncoming defensive players and to deliver the ball backwardly and repeatedly driving forward, to effectively complete the ruck-and-maul.

20

The present invention may, of course, be carried out in other specific ways than those herein set forth without departing from the spirit and essential characteristics of the invention. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive and any changes coming within the meaning and equivalency range of the above

25 description are to be embraced.

30

It will be appreciated that modifications to the above embodiments are possible without departing from the scope of the invention and although the present invention has been described and illustrated in detail and substantially as described with reference to the accompanying drawings, it is to be clearly understood that the same is by way of illustration and example only, and is not taken by way of limitation. The spirit and scope of the present invention are to be limited only by the terms of the claims to be filed accompanied with a complete patent specification.

The text of South African Patent Application No 2000/1789, from which this application claims priority, is an integral part of the disclosure as if specifically reproduced here.

5

The claims which follow form an integral part of the disclosure.

Claims

1. A football training apparatus including:
 - a padded member which is biased to inhibit the forward progress of a
5 trainee player who impacts into the padded member;
 - biasing means for biasing the padded member against displacement relative to the framework in the direction of impact; and
 - a framework on which the padded member and biasing means are directly or indirectly supported.
- 10 2. An apparatus as claimed in claim 1, wherein the padded member is a cross member of the framework.
3. An apparatus as claimed in claim 2, wherein the padded member is
15 provided in addition to a padded cross member of the framework.
4. An apparatus as claimed in any one of the preceding claims, wherein the apparatus includes a plurality of the padded members thereby to permit a plurality of trainees to practice a manoeuvre together.
- 20 5. An apparatus as claimed in any one of the preceding claims, wherein the apparatus includes resistance means for inhibiting forward motion of the padded member while inhibiting damage to the surface on which the apparatus is used.
- 25 6. An apparatus as claimed in any one of the preceding claims, wherein the apparatus includes one or more wheel means rotatably connected to the framework to permit displacement of the framework over a surface on which the apparatus is used.
- 30 7. An apparatus as claimed in any one of claims 5 to 6, wherein the resistance means includes a skid which provides frictional resistance to displacement over the surface.

8. An apparatus as claimed in any one of claims 5 to 7, wherein the resistance means includes one or more mass pieces placed on the framework to provide a downward force to provide resistance to displacement of the apparatus.

5

9. An apparatus as claimed in any one of claims 5 to 8, wherein the location of the mass pieces on the framework is selectable to control the amount of resistance to displacement.

10. An apparatus as claimed in any one of claims 5 to 9, wherein the total mass of the mass pieces on the framework is selectable to control the amount of resistance to displacement.

11. An apparatus as claimed in any one of claims 5 to 10, wherein the resistance means includes brake means for applying a braking force to the wheels thereby to provide resistance to displacement.

12. An apparatus as claimed in any one of claims 5 to 11, wherein the resistance means includes foot plates on which persons may stand to provide a downforce or a braking force to the apparatus.

13. An apparatus as claimed in any one of the preceding claims, in which the front end includes a plurality of access openings and a plurality of cushioned impact pads located on the framework so that portions of said access openings are defined between at least some of said pads.

14. An apparatus as claimed in claim 13, wherein the access openings below the padded cross member.

15. An apparatus as claimed in claim 13 or 14, wherein the impact pads include a vertically orientated portion against which a trainee may push to exercise the technique used in a ruck-and-maul manoeuvre.

16. An apparatus as claimed in any one of claims 13 to 15, wherein the impact pads are the padded members of claim 1.
17. An apparatus as claimed in any one of the preceding claims, wherein
5 the biasing means is one or more resiliently deformable members.
18. An apparatus as claimed in claim 17, wherein the impact pads are biased against displacement by the resiliently deformable member or members.
- 10 19. An apparatus as claimed in claim 17 or claim 18, wherein the resiliently deformable member is an elastic cord.
20. An apparatus as claimed in anyone of claims 17 to 19, wherein the
15 resiliently deformable members are attached to the impact pads at a position located to complement the stature of the trainee.
21. An apparatus as claimed in claim 20, wherein the attachment position adjustable.
- 20 22. An apparatus as claimed in anyone of claims 13 to 21, wherein the impact pads are size adjustable to present a suitable target for a specific stature trainee.
- 25 23. An apparatus as claimed in claim 1, substantially as herein described and illustrated.
24. A new apparatus substantially as herein described.

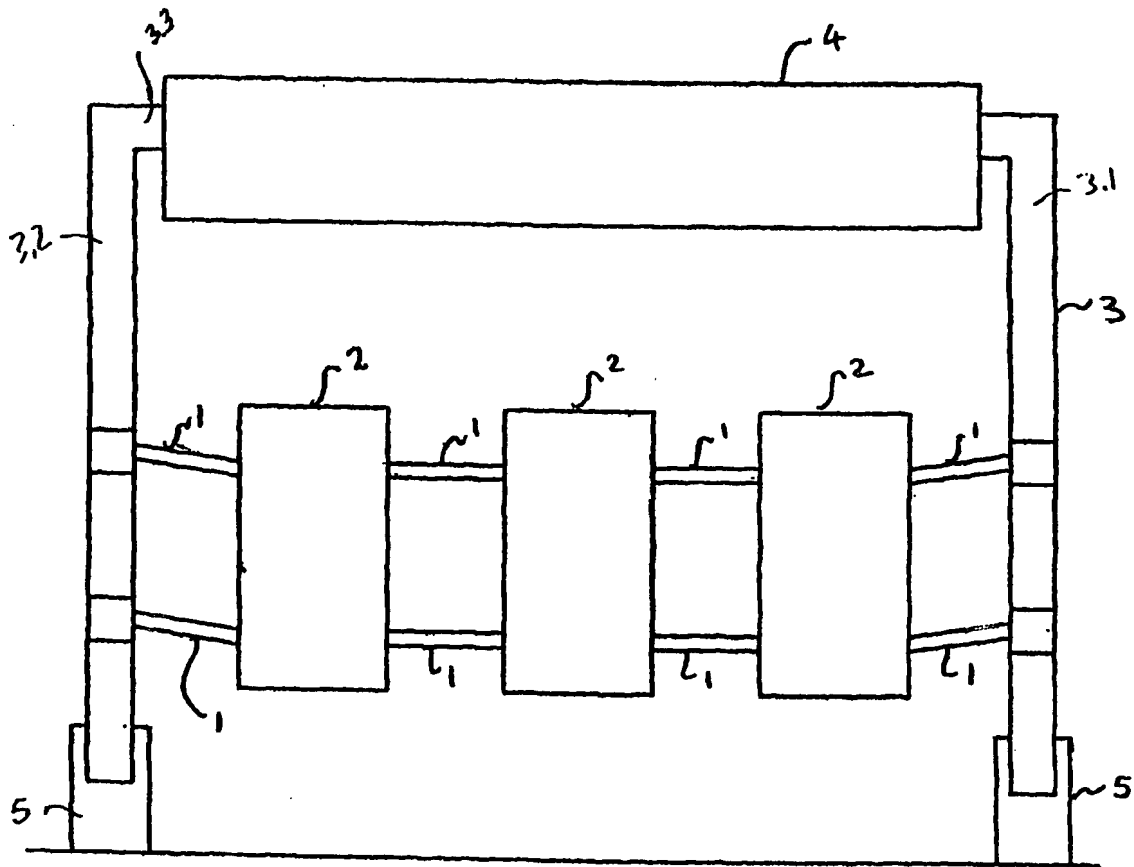


Figure 1

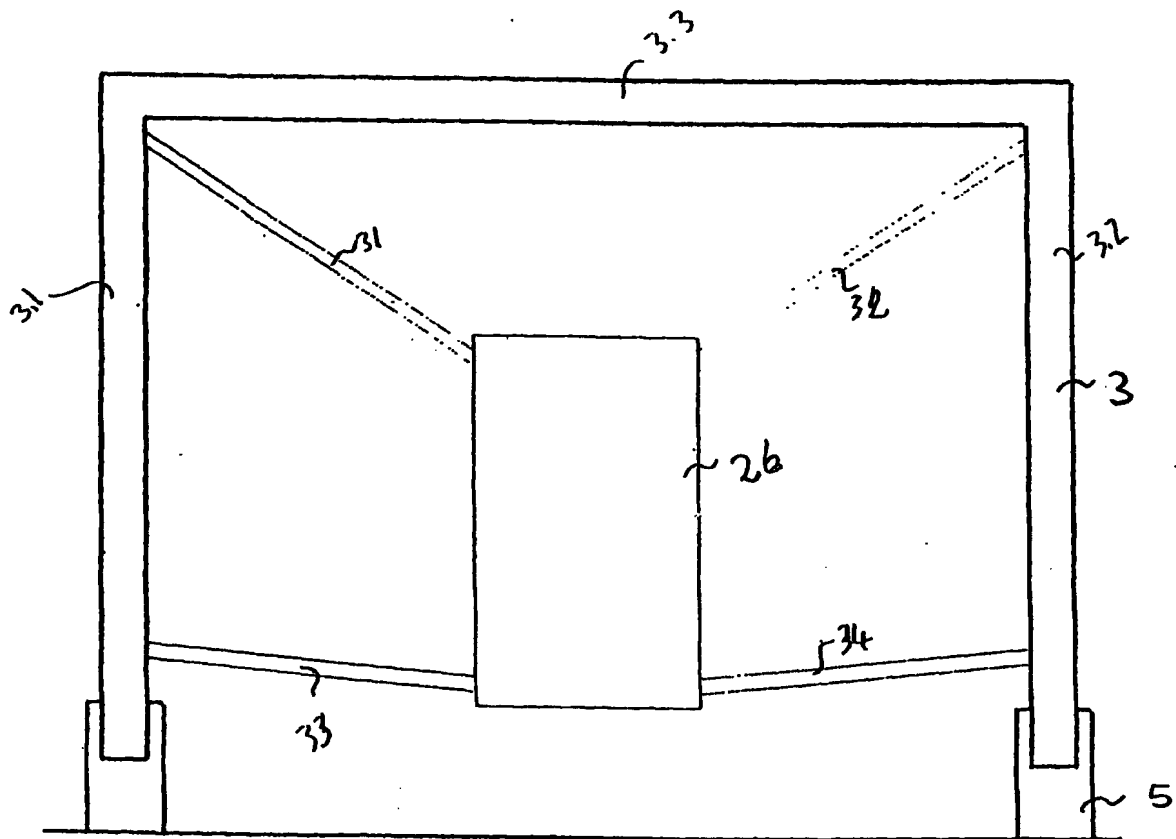


Figure 4

5/9

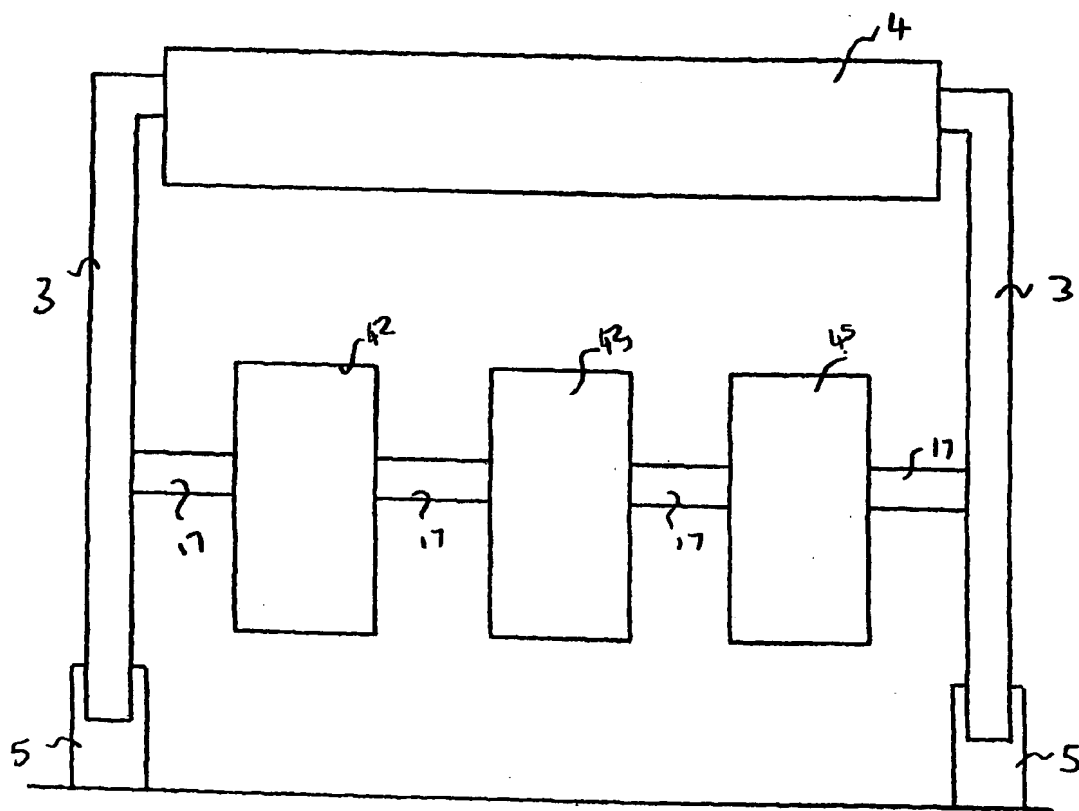


Figure 5

6/9

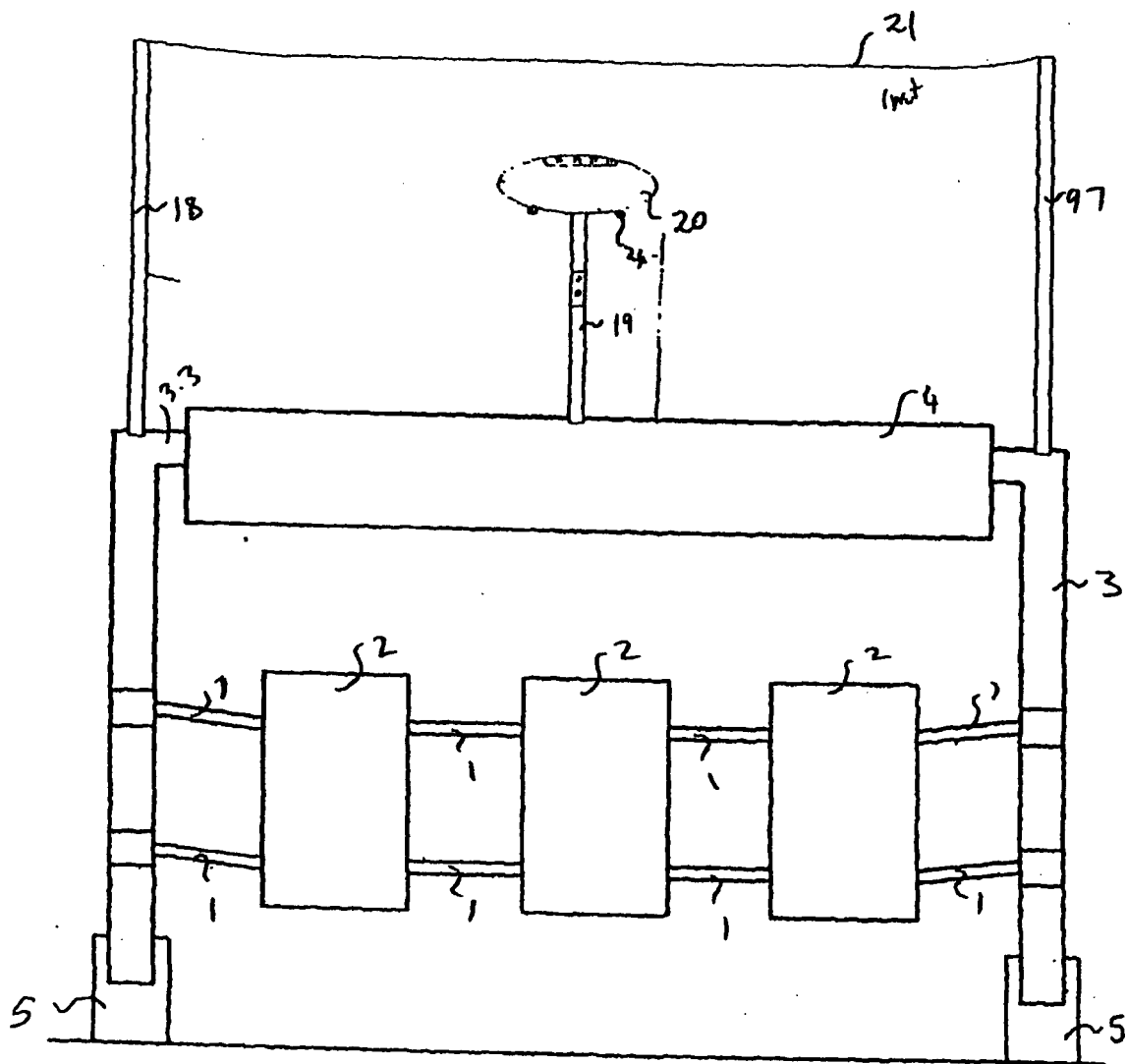


Figure 6

7/9

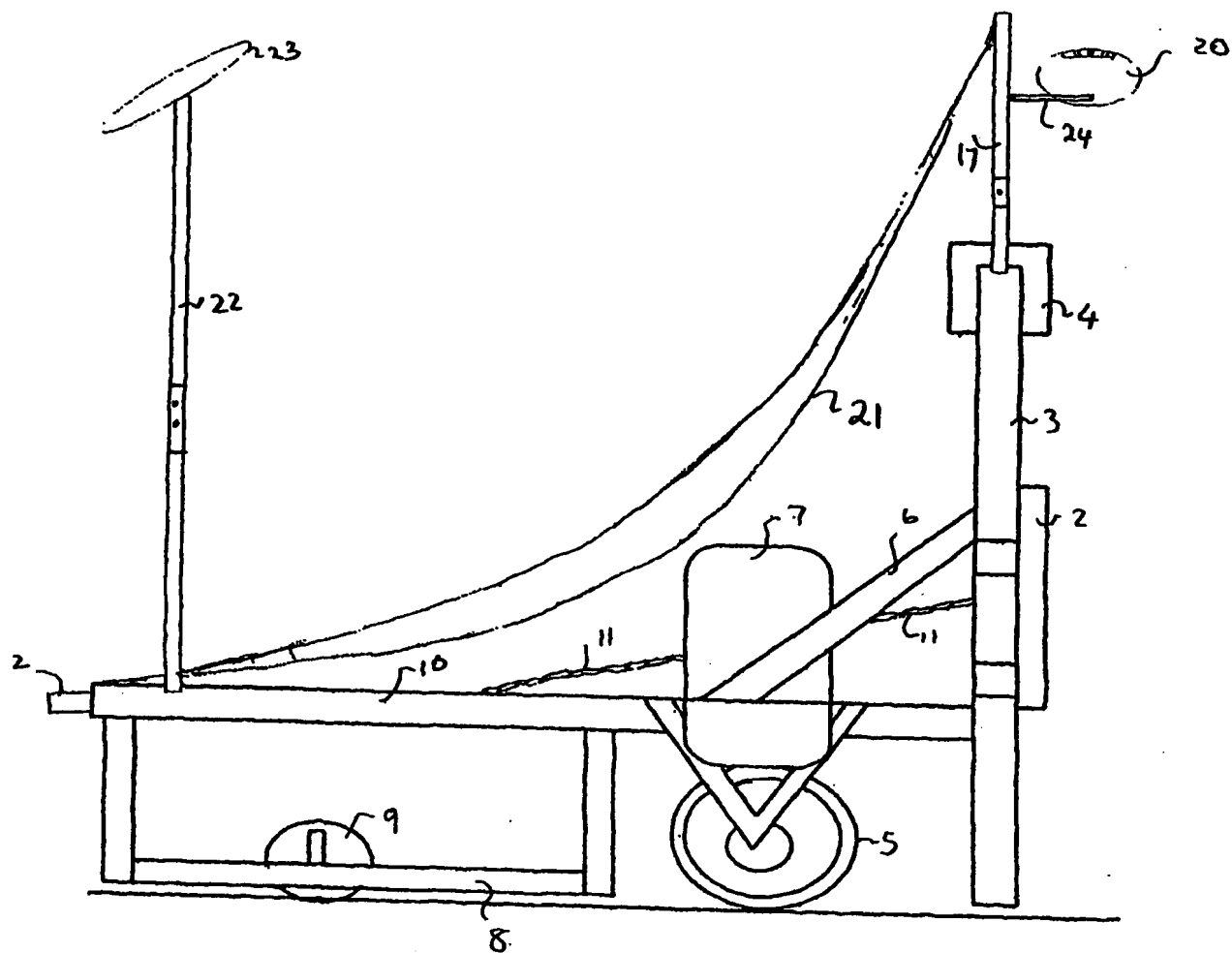


Figure 7

8/9

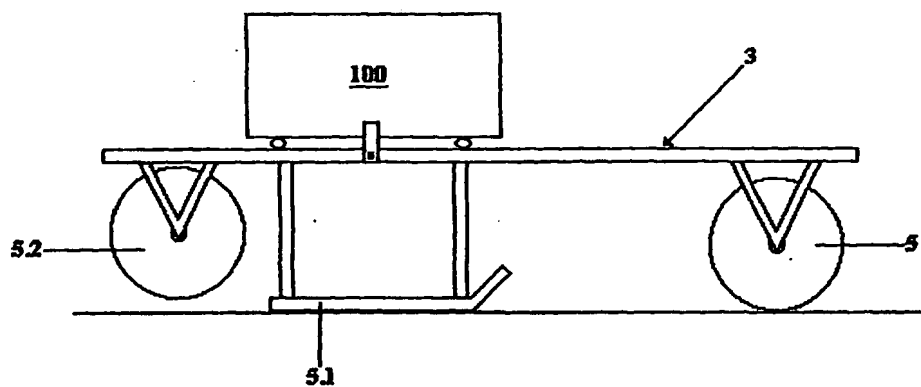


Figure 8

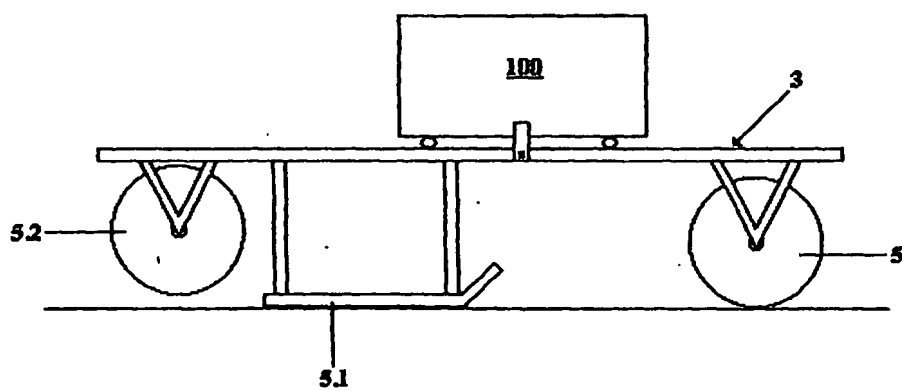


Figure 9

9/9

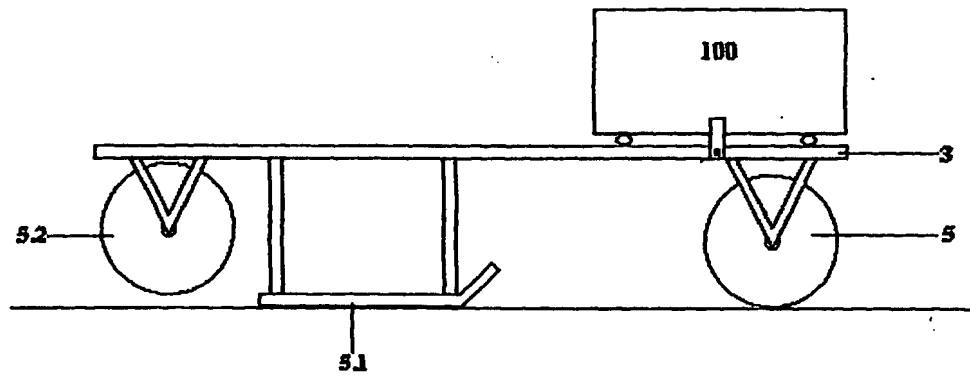


Figure 10

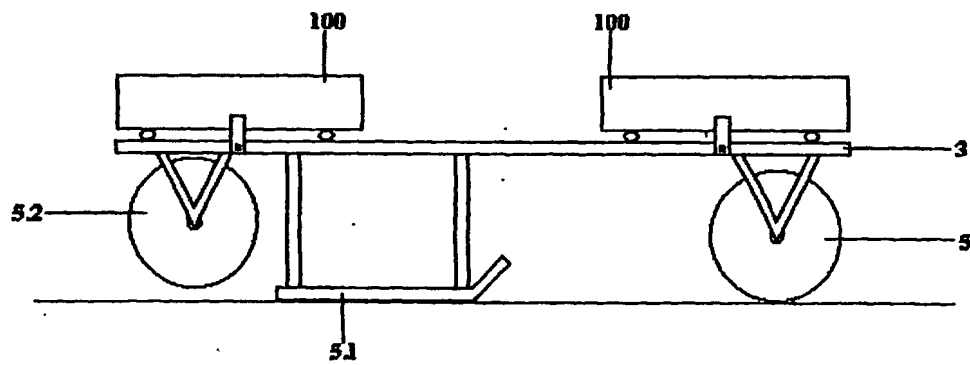


Figure 11